



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,065	03/07/2000	Helge Simonsen	SUN-P6511	9878

7590 03/05/2004

Daniel Vaughan  
Park Vaughan & Fleming LLP  
Suite 310  
702 Marshall Street  
Redwood City, CA 94063

EXAMINER
----------

NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
----------	--------------

2665

DATE MAILED: 03/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/520,065

Applicant(s)

SIMONSEN ET AL.

Examiner

Steven HD Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 8-10 and 13-20 is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/13/04 has been entered.

---

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 7 is rejected under 35 U.S.C. 101 because a single claim which claims both an apparatus and the method, is directed to non-statutory subject matter. The claim is directed into both a "process" and a "machine," and overlaps two different statutory classes.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2665

The recited "In a system ... complete queue" is vague and indefinite because the claimed invention is directed into an apparatus of a host adapter comprising a network protocol engine ... by the network process protocol engine and a method for local and remote asynchronous complete control comprising the steps of detecting ... complete queue" as set forth a single claim which claims both an apparatus and the method steps of using the apparatus is indefinite. In Ex parte Lyell, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990), a claim directed to an apparatus of a host adapter and the method steps of controlling the detection of a final packet for generating a complete queue process was held to be ambiguous.

---

***Allowable Subject Matter***

5. Claims 1-6, 8-10 and 13-20 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

As claim 1, the prior arts in the record fail to disclose general computer network controller for a network node, coupled to a system area network, comprising a network protocol engine configured to schedule packets for transmission onto the system area network; a data buffer configured to handle one or more payloads; a fully associative context block configured to hold a plurality of last recently used contexts to provide a dynamic resource allocation scheme reflecting run time situations; an address translation table coupled to said network protocol engine and configured to maintain inbound address mapping; store context information not currently stored in said context block; a dedicated, programmable micro sequences tightly coupled to said context block and configured to control said context block; handle control flow and process multiple types of network packets and protocols; wherein said micro sequences is

Art Unit: 2665

packet format independent and network independent; and wherein said contexts are updated by said micro sequences, by an inbound scheduler and by said network protocol engine.

As claim 8, the prior arts in the record fail to disclose protocol engine for a channel adapter configured to interface a system area network with a network node, the protocol engine comprising: an inbound scheduler configured to schedule one or more of the following for each of a plurality of tasks: decoding, scheduling and invoking; a multi-context micro sequencer configured to handle control flow for multiple communication channels between the network node and the system area network, wherein said multi-context micro sequencer is packet format independent and network independent; a context block configured to store a set of least recently used contexts, wherein each said context corresponds to one of the communication channels; a data buffer configured to buffer payloads of packets for the multiple communication channels; and a network protocol engine configured to schedule transmission of packets onto the system area network wherein a subset of said set of contexts stored in said context blocks is reserved for outbound RDMA (Remote Direct Memory Access); and wherein a remainder of said contexts in said set of contexts are dynamically allocated among inbound RDMA, inbound RMA (Remote Memory Access) and outbound RMA.

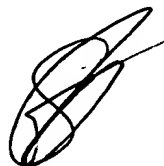
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on 8-5.

Art Unit: 2665

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



---

Steven HD Nguyen  
Primary Examiner  
Art Unit 2665  
2/26/04